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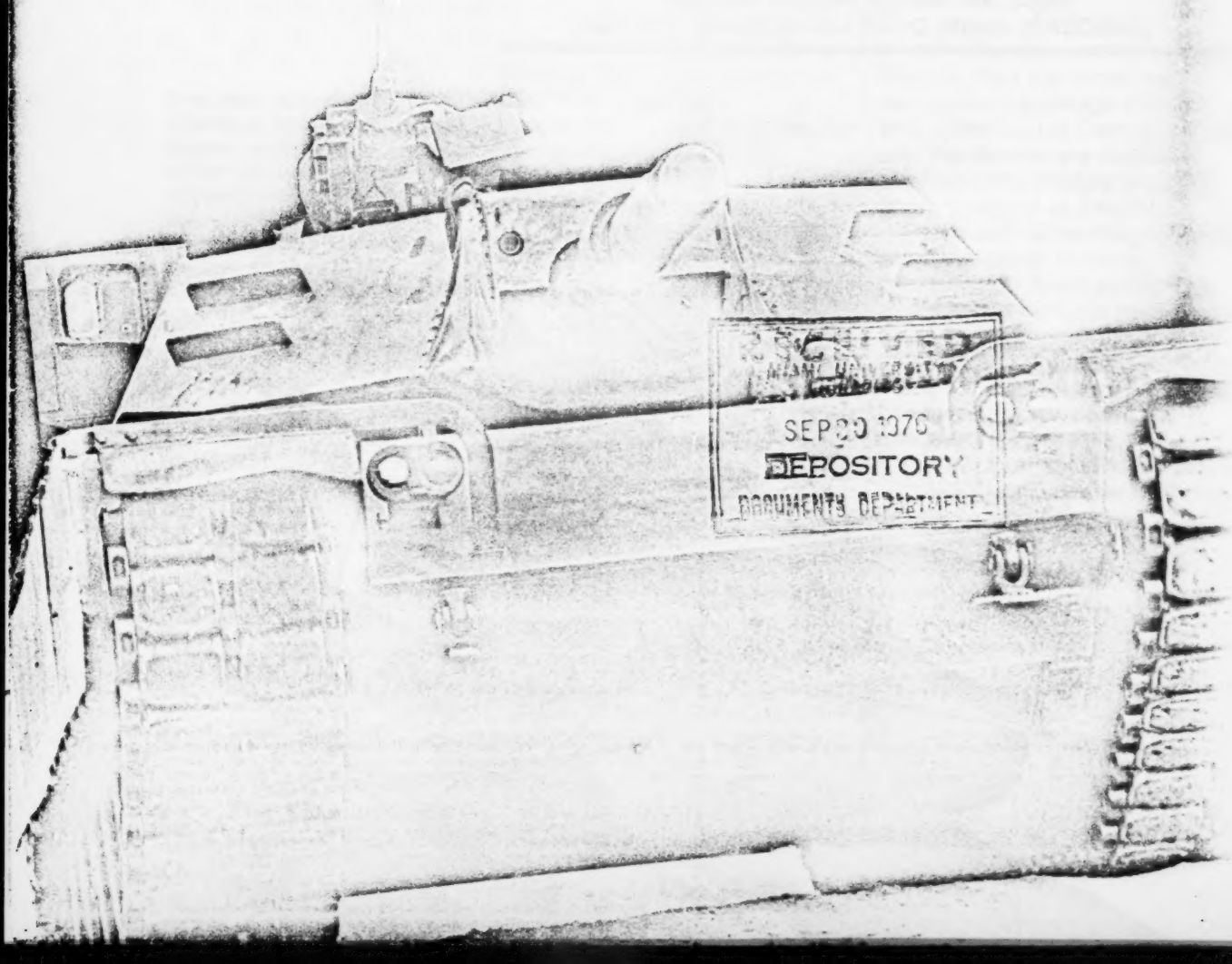
The Compelling Reasons For

NATO STANDARDIZATION



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NATO

Standardization for Improved Combat Capability

By
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Director, European and NATO Affairs (OASD/ISA)

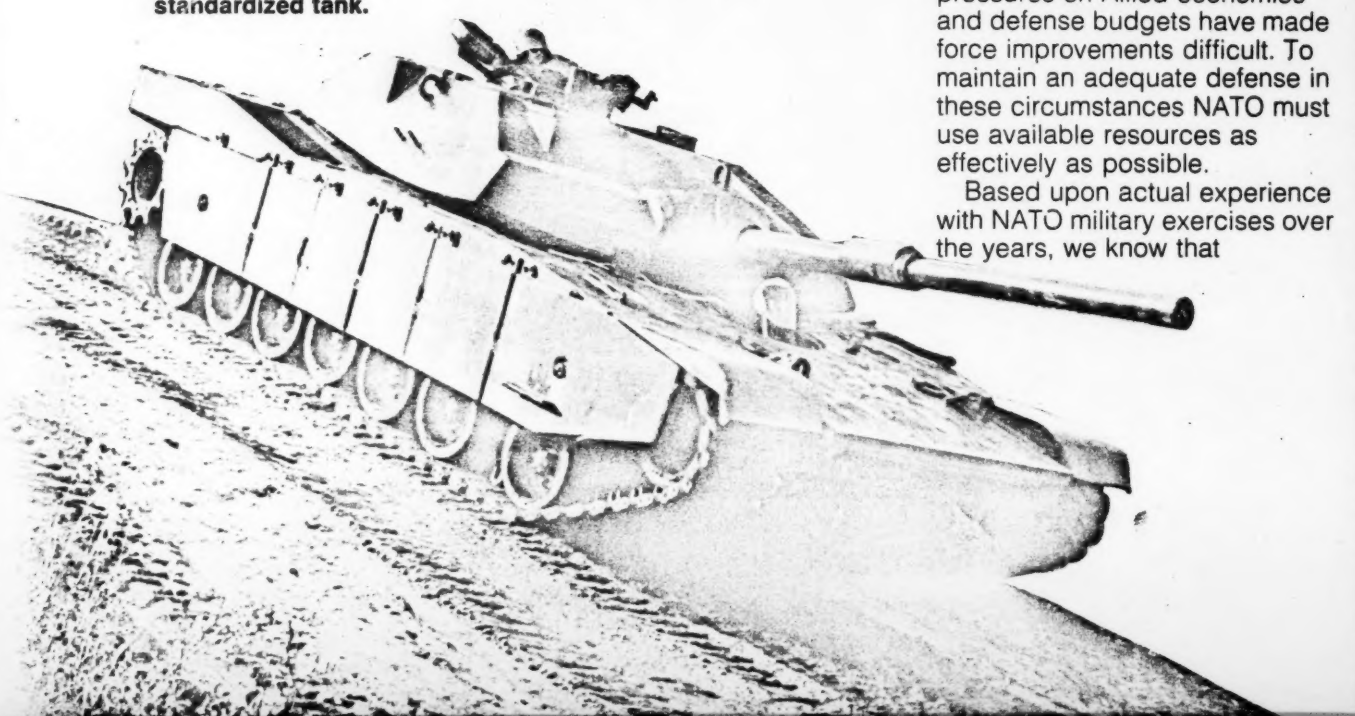
During the past three years I have been involved in the effort to improve NATO (North Atlantic Treaty Organization) standardization—first, in the U.S. mission to NATO and more recently, in the European and NATO Affairs Directorate of International Security Affairs in the Office of the Secretary of Defense. Especially during the past year I have seen unprecedented high-level interest throughout the Alliance in achieving increased standardization.

In fact, standardization work now includes military doctrine and force structure, training, communications and logistics. The Alliance is using the term rationalization to encompass this broadened effort to ensure more efficient use of resources in non-weapons as well as weapons fields.

The case for standardization in NATO remains compelling. Greatly improved combat capability is the main objective. The need to improve NATO standardization is urgent because sustained growth of modern Soviet tactical forces has made it even more difficult for NATO to maintain an adequate conventional capability. The Warsaw Pact has more than a two-to-one advantage in tanks and artillery in the Central Region and the Soviets are deploying excellent new models in almost every category of weapons.

Particularly since the post-1973 price increases in energy, pressures on Allied economies and defense budgets have made force improvements difficult. To maintain an adequate defense in these circumstances NATO must use available resources as effectively as possible.

Based upon actual experience with NATO military exercises over the years, we know that



The XM-1 (Chrysler prototype below and General Motors prototype on cover) is the U.S. tank version which is being evaluated along with the LEOPARD 2 of the Federal Republic of Germany for use as the NATO standardized tank.

insufficient standardization is a serious handicap to Alliance military effectiveness. For example, Exercise Reforger—1975, an annual exercise intended to demonstrate U.S. capability to reinforce NATO forces, exhibited problems with logistics, training procedures, weapons, and communications equipment—all of which were related to the need for greater standardization. The Supreme Allied Commander, Europe, has informed the Alliance that lack of standardization in doctrine and equipment has seriously limited inter-Allied cooperation.

One extreme example of the difficulties that could result from non-standardization is the ACE Mobile Force made up of units from seven Allied nations. That force is designed to deploy to critical areas in time of crisis and has some 5,000 ground force personnel as well as air support. A 1974 analysis by a NATO official indicated that it had seven different types of combat aircraft, six types of recoilless rifles, four types of wire-guided anti-tank weapons, and three types each of mortars, rifles, and machine guns. Because of that diversity, units could not count on ammunition or maintenance support from each other or from host nations.

With greater standardization the ACE Mobile Force could fight together better in wartime, and in peacetime could save resources through common logistics programs. In fact, it was estimated that the logistics staff could be cut by one-half.

Need for a Two-Way Street Across the Atlantic

In any effort to increase standardization in NATO we must recognize that the Alliance is made up of 15 independent countries, and those 15 countries, including the United States, are not willing to be completely dependent on any single foreign source of supply for major defense weapons. The flow of defense equipment from one ally to another could be interrupted for a number of reasons other than Alliance policy. As a result, members of this Alliance will be willing to standardize most systems only if there is licensed production in more than one country. Of course, this approach also has the military dividend of alternate sources of supply in the event of a conflict.

Licensing production of U.S. weapons in Europe or Canada and Allied weapons in the United States will usually involve somewhat higher costs than single-source production. But, the increased effectiveness of Allied forces, achieved through standardization, would more than make up for the difference, and in many cases, some reduction in multiple development efforts in a particular area could result in major savings.

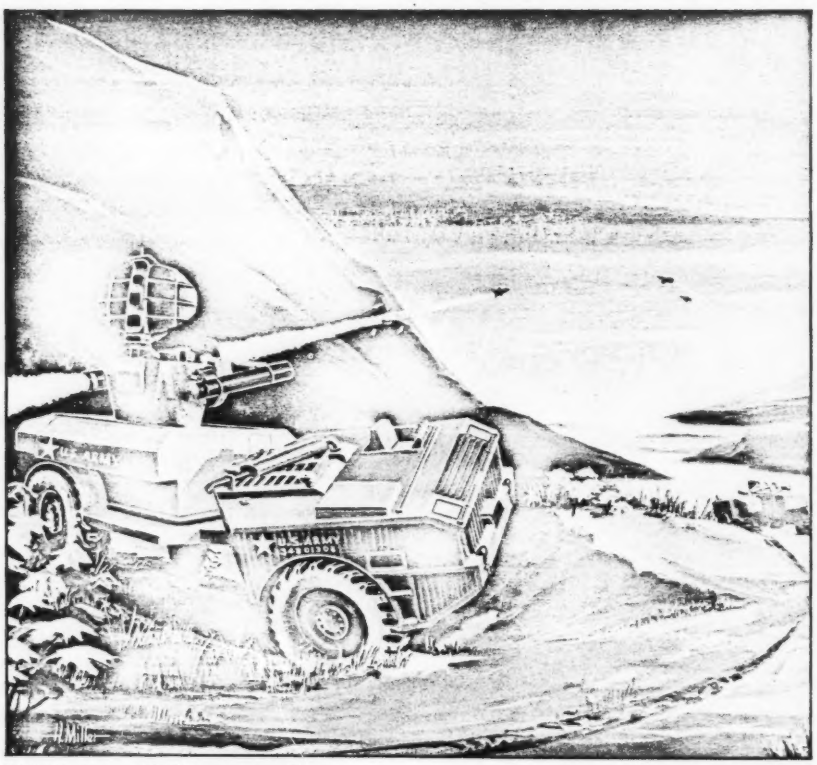
But even after we agree on licensing of production as a means of increasing standardization, many members of the Alliance will find it difficult to insure an objective hearing for foreign programs. In the case of the United States, the weapon procurement process is long and complicated. Throughout the life of a project, from the design state on, there is continual interaction among the Services, procurement agencies, and industry. Contracts are awarded not only on the basis of cost, but delivery times, past performance of competing firms, and the need to maintain balance within the industry. Specifications can change as a result of experience during the development process. As a result of all this, there are strong commitments to the American product by the time even the prototype stage has been reached. Accordingly, it is difficult for us to consider a competing Allied product, particularly if it is in a different stage of development. And our Allies have the same sort of difficulties in considering new U.S. systems.

XM-1/LEOPARD 2 Tanks

The XM-1/LEOPARD 2 Comparative Tank Evaluation program reflects the difficulty of conducting an effective evaluation when national development efforts differ in scope and timing. In a Memorandum of Understanding, signed in late 1974, the United States agreed to test Germany's modified LEOPARD 2 to the same ground rules, specifications, and constraints established for the XM-1 and include it in a comparative test and evaluation. There is no commitment on the part of either the United States or Germany to adopt the tank of the other country.

In the event that the LEOPARD 2(AV) proves to be a clearly superior design and of comparable cost, considering all factors, the Defense Department would be prepared to recommend adoption of that design for completion of development and production in the United States. Congress, of course, would have to provide the funds and thus approve the decision.

As a part of the effort of the two countries to share tank technology, the United States has made available to the Federal



This is an artist's conception of the U.S. ROLAND anti-aircraft missile system. The United States made the selection of this French-German system before expending large sums of money on a similar development.

Republic of Germany (FRG) the technology for night sights and fire control equipment that is presently being considered for incorporation in the modified LEOPARD 2 tank. Such a cross-flow of technical information will improve the capabilities of both tanks, even if both countries do not agree on adoption of the same tank. It will also set the stage for increased international cooperation for a NATO standard for the next generation in the late 1980s or early 1990s.

To assist in establishing future effective prototype competitions the United States is working in the Alliance to develop broad military requirements and an equipment replacement cycle which would assist in timing Alliance competitive developments.

ROLAND Anti-Aircraft Missile

In the case of the French-German ROLAND anti-aircraft missile system, the United States made the selection of an Allied product before expending large sums of money on a similar development. A Memorandum of Understanding between France, the Federal Republic of Germany and the United States states that the three countries will seek an optimum level of standardization of their ROLAND systems.

But even after a common selection is made of a new weapon, many problems remain in carrying out efficient licensing. In the case of ROLAND, the U.S. contractor had serious difficulties in reading and understanding the engineering drawings, and the connectors, threads, and many components proved to be different from American parts. Moreover, both the

Reforger—1975, an annual exercise intended to demonstrate U.S. capability to reinforce NATO forces, related the need for greater standardization.

An agreement between the United States and the European Participating Government allows the European members to purchase more than 300 F-16 aircraft and to share in production.

French-German developers and the U.S. contractor have continued to make improvements in the system. Nevertheless, the U.S. Army will rigidly control U.S. contractor changes to the European ROLAND system; the ROLAND missile will be interchangeable between the U.S. and European fire units.

To facilitate future licensing programs, we are working for NATO agreements on specifications for such things as connectors and frequently used subsystems. We also plan to study the ROLAND program in detail for lessons on how to handle similar production under license efforts.

F-16 Presents Challenges

Just as we have experienced problems producing the ROLAND here in the United States, the F-16 is presenting a number of challenges to European producers.

There is an agreement between the United States and the European Participating Government (EPG) consisting of Belgium, Denmark, The Netherlands, and Norway, under which European members will purchase more than 300 aircraft and will share extensively in production. During the life of the program, the advanced technology associated with the system essentially will be transferred to the Europeans, thus strengthening their industrial base and increasing NATO standardization.

But as I indicated, there are challenges to be overcome and lessons to be learned by all participants. General Dynamics and Pratt-Whitney are encountering some difficulty in finding European subcontractors who are "reasonably competitive" with comparable bids by U.S. firms, as is stipulated in the memo of understanding. The Europeans need new capital equipment, manhours for similar tasks are greater, and social overhead and corporate taxation rates are higher. Also, fluctuating exchange rates, differing inflation projections, and varying cost accounting systems make the F-16 co-production program very complex. But the commitment to succeed is strong, and we are optimistic that an important co-production precedent is being set.

Airborne Warning and Control System

In some cases, especially when a particular system is not needed in large quantities, licensing of production may not be economically feasible. The Airborne Warning and Control System, or AWACS, is an example. AWACS is badly needed if NATO is to maintain effective defenses against low-flying aircraft and control of its air resources. A NATO AWACS Program would also be a major success for standardization because at least one other country is on the verge of spending hundreds of millions of

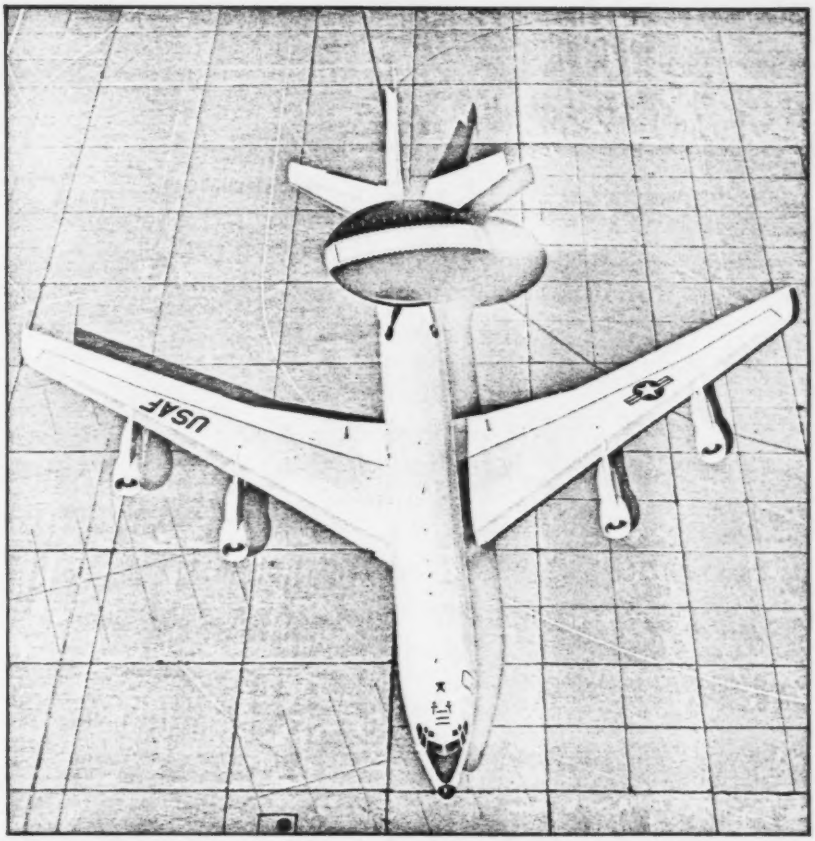
dollars on the development of a similar system. If the Alliance can agree on a NATO AWACS Program, the money saved by avoiding duplicate research and development efforts can be spent on other weapon systems which the Alliance needs badly.

During 1975, the NATO Military Committee, Conference of National Armaments Directors, and the NATO Defense Ministers endorsed a NATO AWACS system as the most cost-effective means to redress known deficiencies in the Alliance's low altitude radar coverage. Program and contract definition for a NATO AWACS are underway. The following steps toward establishment of the program were envisioned:

- Alliance preparatory phase funding of $12-15 million with the Federal Republic of Germany, the United Kingdom, the United States and possibly others participating.
- Initial programming and cost sharing proposals considered by Ministers and forwarded to Legislatures for study and approval.
- An agreed program to include program funding and cost sharing schedule approved by Ministers.

With respect to cost, the Secretaries of State and Defense have determined that a 4 per cent research and development surcharge for U.S.-developed items, plus an overall 2 percent Foreign Military Sales (FMS) administration fee, is in the best interests of the United States. This does not cover the U.S. research and development costs of the AWACS Program, but research and development costs must be capable of limitation in all NATO contracts if standardization is to succeed. The larger Alliance countries all conduct major research and development efforts and thus should not try to double charge their Allies for research and development. Moreover, research and development efforts result in technical improvements for the national economy. The cost of the AWACS program to the Alliance will fully pay for production plus the nominal research and development surcharge.

NATO Allies will share in the overall costs of this system, which will be the Alliance's biggest common program to date. Europe probably will co-produce 25 percent of the AWACS system: But to permit success in this type of expensive Alliance procurement from the United States, we must



NATO needs a standardized airborne warning and control system to maintain effective defenses against low-flying aircraft and control of its air space. This is the U.S. Air Force's Airborne Warning and Control System aircraft.

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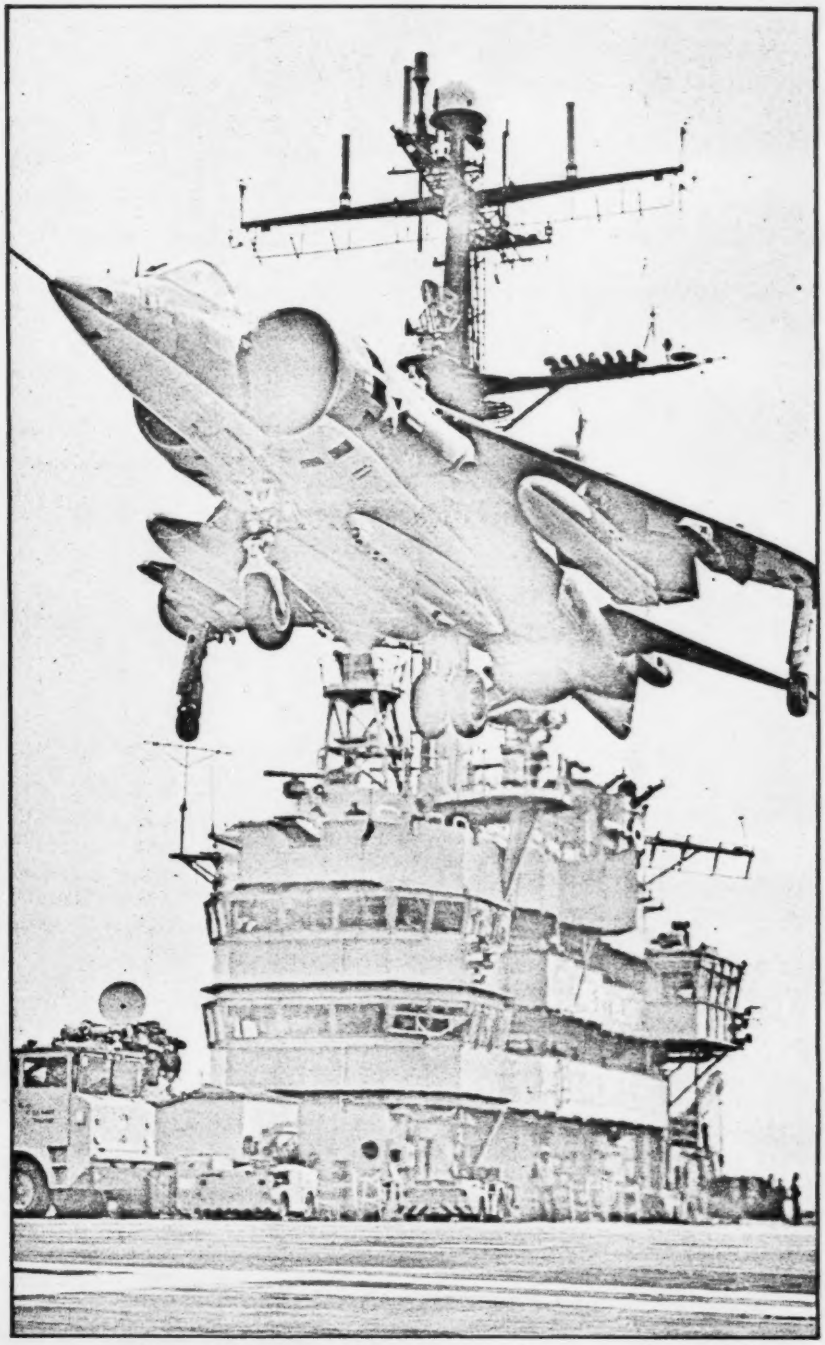

The purchase of HARRIER aircraft from the United Kingdom, such as this AF-8A vertical take off and landing light attack aircraft, is one example of cost-effective procurement from U.S. allies.

be willing to consider appropriate cost-effective procurements from our Allies. One such program was the purchase of HARRIER aircraft from the United Kingdom. We are currently looking for other similar possibilities.

Conclusion

Our objective is not to standardize for the sake of standardization, but to enhance combat readiness and cost effectiveness. We want to do those things that make good military and economic sense. While I have emphasized a number of problems and obstacles with respect to NATO weapon system standardization, I believe there is today a much wider acceptance by Alliance nations of the need to achieve that goal.

In this regard continued interest and support of Alliance standardization by the U.S. Congress is the key to the vitality and success of the future efforts.

We hope that European parliaments will also enact measures, such as the Culver-Nunn Amendment, which calls for greater NATO standardization.

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